REMARKS

Claims 1 to 23 and 25 were pending, with Claim 1 being independent.

Claim 19 has been cancelled. Withdrawn Claims 21-23 have now been cancelled, too.

Accordingly, Claims 1-18, 20 and 25 remain presented for prosecution.

Applicant acknowledges with thanks that the Section 112, first paragraph rejection of Claim 7 has been overcome.

Claim 1 has been amended.

All pending claims remaining in active prosecution have been rejected.

Applicant turns now to the substance of the Action.

Section 112 Rejections:

Claims 1-20 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement for the asserted reasons given at page 3 of the Action.

Claims 1-20 stand rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for the asserted reasons given at page 4 of the Action.

The Examiner's comments at paragraph 4, page 3 and paragraph 6, page 4 of the Action have been considered and an appropriate amendment to Claim 1 has been introduced to overcome the Sections 112, first and second paragraphs, rejections. Reconsideration and withdrawal thereof are thus requested.

Section 102(b) and 103(a) Rejections:

Claims 1-5, 10-14 and 19 continue to stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0139487 (Montgomery) for the reasons given at pages 4-5 of the Action.

Claims 1-14, 19 and 20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over PCT Publication No. 03/46042 (Thommes), U.S. Patent No. 4,343,885 (Reardon) and in view of Montgomery for the reasons given at pages 6-8 of the Action.

Claims 15-18 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Reardon and Montgomery in view of U.S. Patent No. 6,309,797 (Grinevich) for the reasons given at pages 6-8 of the Action.

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Grinevich, U.S. Patent No. 5,942,554 (Ren) and Japanese Patent Nos. 1-16802, 4-45125 and

60-72961 in view of Montgomery and Reardon for the reasons given at page 8 of the Action (referring to pages 7-8, paragraphs 13-17 of the Office Action mailed May 22, 2006).

Applicant's cancellation of Claim 19 renders moot the Section 102 and 103 rejections thereof. Applicant traverses the rejections of the remaining claims in prosecution.

The present invention is directed to encapsulant compositions suitable for encapsulating electronic components, such as an integrated circuit module, particularly in smart card applications.

Ordinarily, with uv curable compositions having fillers, there is great difficulty in balancing desired opacity (from the filler) with the ability to cure with speed. In the electronics industry, speed of processing of electronic component is of paramount importance. So too, is the reliability with which the desired characteristics are achieved in the curable composition. Lower reliability leads to higher failure rates and inefficient processing.

There is thus an inherent trade-off between the uv curability of the composition and the nature and amount of opacifying agent employed. Compositions known to be available commercially for the purpose of solving the problem to which the present invention is directed have struggled with this balance.

Such compositions have employed a relatively high loading of opacifying material thereby compromising cure speed. In general these two requirements were so finely balanced that relatively small changes to the amount of the opacifying agent, the amount of uv exposure, and/or the time of such exposure could lead to insufficient cure through volume.

Until the present invention, there was no commercially available composition which could be used in high speed processing environments to achieve the reliability in performance as demonstrated by the compositions of the present invention.

The cited documents of record are derived from diverse technological fields, which are each unrelated to the present invention. In fact, the only common thread among the cited documents is that they involve uv curable compositions, which change color. Opacity is not mentioned, let alone the balance between uv curability and the nature and amount of opacifying agent.

Applicant discusses more specifically the cited documents of record in turn below.

Montgomery

Montgomery relates to methods for repairing optical components, such as optical fibres, where the disclosed composition is used for splicing together of fibers to create a link between a new piece of fiber cable and an existing one. Montgomery's compositions uses color to "impart the desired color to the finished fiber".

There is no teaching whatsoever by Montgomery of any system to achieve sufficient cure through volume on exposure to uv light to allow a sufficient thickness of composition to cure as encapsulant so that the encapsulant is opaque and the part is not visible through the encapsulant.

Montgomery neither motivates nor teaches the skilled person on how to prepare a composition as defined by Claim 1 of the subject application.

Thommes

Thommes' silane coupling agents are for surface treating inorganic fillers, and may be included in the compositions described by Thommes. However, it is clear that the silane referred to in Thommes is not an adhesion-promoting component, as the silane coupling agent is used in the inventive photocurable compositions.

Accordingly, it is clear that Thommes has been cited based entirely on hindsight as regards the individual components of the composition of the present invention. This is clear given that the disclosure does not relate to the same technical field and particularly clear in view of the reliance on an out-of-context citation of the silane component.

Thommes neither motivates nor teaches the skilled person on how to prepare a composition as defined by Claim 1 of the subject application.

Reardon

Reardon relates to a composition which changes color. In particular, as identified in column 1, lines 37 et seq., it is desired that Reardon's composition change color so that the person running the photoresist process can determine that the composition has been exposed to sufficient uv light. Thus, the requirement is only for a color change to occur to allow determination of sufficient exposure. There is no requirement for opacity in the composition.

Reardon neither motivates nor teaches the skilled person on how to prepare a composition as defined by Claim 1 of the subject application.

Reardon, like Thommes, discloses treating a filler with silane. For that reason, and that Reardon and Montgomery are from diverse technical fields, improper hindsight has been used in combining these documents to try to arrive at the present invention.

Even if such a combination were permissible, neither of these documents teaches a composition according to the present invention as defined in Claim 1 which has sufficient cure through volume on exposure to uv light to allow a sufficient thickness of composition to cure as encapsulant so that the encapsulant is opaque and the part is not visible through the encapsulant. There is therefore no motivation in Reardon or in its combination with any other documents cited, to arrive at the present invention.

Grinevich

Grinevich provides colorable polymerizable compositions, not uv curable compositions which provide a degree of opacity when cured. There is no mention of an adhesion-promoting agent or of the particular end-use contemplated by the present invention. Grinevich discloses a color change mechanism, but fails to deal at all with any of the technical problems addressed by the current invention.

Grinevich neither motivates nor teaches the skilled person on how to prepare a composition as defined by Claim 1 of the subject application.

Grinevich is cited as adding something of merit to a combined disclosure from Reardon and Thommes, which itself is misplaced. Adding Grinevich to such a combination does not lead or even point to the present invention.

Ren

Ren discloses a method for the formation of a colored polymeric body which comprises exposing a curable composition consisting essentially of an admixture of a curable compound, a color precursor and an onium salt to actinic radiation such that the exposed composition is both cured and colored. The color precursor is reportedly excited by the radiation converted to its colored form by oxidation of the color precursor by the onium salt.

Ren neither motivates nor teaches the skilled person on how to prepare a composition as defined by Claim 1 of the subject application.

Japanese Patent Document No. JP 1-16802

The English-language translation of the JP '802 document seems top report a composition containing a cationic-polymerisable organic compound, activators forming the active seed curing under irradiation with energy rays and electron-donating colouring organic compounds.

Japanese Patent Document No. JP 4-45125

The English-language translation of the JP '125 document seems to report a resin composition comprising mainly a cationically polymerisable organic compound, a leuco dye containing lactone rings and an aromatic onium salt and optionally a radical polymerisation initiator and a radically polymerisable monomer and develops a colour and/or is hardened by irradiating energy radiation and/or heating.

Japanese Patent Document No. JP 60-72961

The English-language translation of the JP '961 document seems to report on colour-forming compositions which comprise leuco compounds, silicon compounds containing silanol group and/or silanol group-forming substitutes and organic metal compounds and optionally epoxy compounds.

In making the Section 103(a) rejection based on Grinevich, Ren, the JP '802 document, the JP '125 document, the JP '961 document, Montgomery and Reardon, the Examiner relies on seven separate documents to reach the combined elements that make up Claim 1.

Such reliance on a multitude of documents is a clear resort to hindsight.

The Examiner, in responding to Applicant's Amendment dated May 22, 2006, has given no patentable weight to Applicants' Amendment and the remarks presented therein. Specifically, the Examiner contents at paragraph 6, page 4 of the Action:

> The claim language achieving sufficient cure through volume to allow a sufficient thickness of the composition to cure on the part such that it is opaque and invisible is the ultimate intended utility of the composition following application on a part. The claims do not require the application of the composition on a part other than claim 25 which has been withdrawn as being a distinct invention as explained in paragraph 1 hereinabove. (Emphasis added.)

The Examiner's determination is in error.

Applicant's invention as defined by Claim 1 highlights among other things performance properties of the composition after exposure to uv light. That is, the composition, when applied on a part as an encapsulant composition, achieves cure

through volume of at least 600-800 um after exposure to uv light. The combination of elements recited in Claim 1 and the noted amounts permits the achievement of these physical properties. This thickness achieved by the encapsulant composition creates opacity and renders the part not visible therethrough.

Applicant respectfully requests reconsideration of the Section 102 and Section 103 rejections.

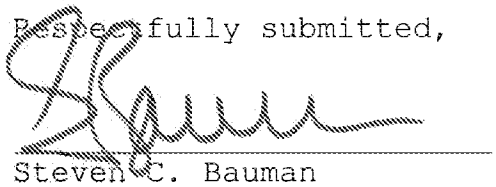
In view of the above, Applicant respectfully submits that the application is in condition for allowance.

In any event, this paper in any event represents an earnest attempt at advancing prosecution on the merits, and thus respectfully submits that entry thereof is proper and at a minimum helps to focus the issues for appeal.

Applicant respectfully submits that the claims as presented herein are patentably distinct from the documents of record. Thus, favorable reconsideration and withdrawal of the rejections and passage to issue of the subject application are respectfully requested.

Applicant's undersigned attorney may be reached by telephone at (860) 571-5001, by email at steve.bauman@us.henkel.com or by facsimile at (860) 571-5028. All correspondence should be directed to the address given below.

Respectfully submitted,



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